

**APPENDIX C. ANALYTICAL METHODS,
REPORTING LIMITS, AND SEDIMENT COLLECTION
JAR SUMMARIES**

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Table C-1. Methods and RL goals for PCB Aroclors, cPAHS, metals, SVOCs, and conventionals in sediment/soil

Analyte	Method	Unit	MDL	RL
PCBs as Aroclors (based on 12.5-g dw sample)				
Aroclor 1016	EPA 8082A	µg/kg dw	8.00 ^a	20.0 ^b
Aroclor 1221	EPA 8082A	µg/kg dw	8.00 ^a	20.0 ^b
Aroclor 1232	EPA 8082A	µg/kg dw	8.00 ^a	20.0 ^b
Aroclor 1242	EPA 8082A	µg/kg dw	8.00 ^a	20.0 ^b
Aroclor 1248	EPA 8082A	µg/kg dw	8.00 ^a	20.0 ^b
Aroclor 1254	EPA 8082A	µg/kg dw	8.00 ^a	20.0 ^b
Aroclor 1260	EPA 8082A	µg/kg dw	9.28 ^a	20.0 ^b
cPAHs (based on 10-g dw sample)				
Benzo(a)anthracene	EPA 8270D-SIM	µg/kg dw	0.537	5.00
Benzo(a)pyrene	EPA 8270D-SIM	µg/kg dw	0.915	5.00
Benzo(b)fluoranthene	EPA 8270D-SIM	µg/kg dw	1.37	5.00
Benzo(k)fluoranthene	EPA 8270D-SIM	µg/kg dw	0.760	5.00
Chrysene	EPA 8270D-SIM	µg/kg dw	0.488	5.00
Dibenzo(a,h)anthracene	EPA 8270D-SIM	µg/kg dw	1.53	5.00
Indeno(1,2,3-cd)pyrene	EPA 8270D-SIM	µg/kg dw	0.575	5.00
PAHs (based on 10-g dw sample)				
Acenaphthene ^d	EPA 8270D	µg/kg dw	5.13 ^a	20.0 ^b
Acenaphthylene ^d	EPA 8270D	µg/kg dw	4.77 ^a	20.0 ^b
Anthracene ^d	EPA 8270D	µg/kg dw	5.93 ^a	20.0 ^b
Benzo(a)anthracene ^c	EPA 8270D	µg/kg dw	5.18 ^a	20.0 ^b
Benzo(a)pyrene ^c	EPA 8270D	µg/kg dw	6.48 ^a	20.0 ^b
Benzo(b)fluoranthene ^c	EPA 8270D	µg/kg dw	7.02 ^a	20.0 ^b

Table C-1. Methods and RL goals for PCB Aroclors, cPAHS, metals, SVOCs, and conventionals in sediment/soil

Analyte	Method	Unit	MDL	RL
Benzo(k)fluoranthene ^c	EPA 8270D	µg/kg dw	5.01 ^a	20.0 ^b
Total benzofluoranthenes ^c	EPA 8270D	µg/kg dw	10.2 ^a	40.0 ^b
Benzo(g,h,i)perylene ^c	EPA 8270D	µg/kg dw	5.82 ^a	20.0 ^b
Chrysene ^c	EPA 8270D	µg/kg dw	5.22 ^a	20.0 ^b
Dibenzo(a,h)anthracene ^c	EPA 8270D	µg/kg dw	6.16 ^a	20.0 ^b
Fluoranthene ^c	EPA 8270D	µg/kg dw	4.52 ^a	20.0 ^b
Fluorene ^d	EPA 8270D	µg/kg dw	4.95 ^a	20.0 ^b
Indeno(1,2,3-cd)pyrene ^c	EPA 8270D	µg/kg dw	5.99 ^a	20.0 ^b
2-methylnaphthalene ^d	EPA 8270D	µg/kg dw	5.67 ^a	20.0 ^b
Naphthalene ^d	EPA 8270D	µg/kg dw	5.25 ^a	20.0 ^b
Phenanthrene ^d	EPA 8270D	µg/kg dw	4.69 ^a	20.0 ^b
Pyrene ^c	EPA 8270D	µg/kg dw	5.55 ^a	20.0 ^b
Metals (based on 1-g ww unless otherwise noted)				
Arsenic	EPA 6020A UCT-KED	mg/kg dw	na ^e	0.2 ^b
Cadmium	EPA 6020A UCT-KED	mg/kg dw	na ^e	0.1 ^b
Chromium	EPA 6020A	mg/kg dw	na ^e	0.5 ^b
Copper	EPA 6020A UCT-KED	mg/kg dw	na ^e	0.5 ^b
Lead	EPA 6020A	mg/kg dw	na ^e	0.1 ^b
Silver	EPA 6020A	mg/kg dw	na ^e	0.2 ^b
Zinc	EPA 6020A UCT-KED	mg/kg dw	na ^e	4 ^b
Mercury (based on 0.2-g ww sample)	EPA 7471B	mg/kg dw	na ^e	0.025 ^b
SVOCs (based on 10-g dw sample)				
2,4-dimethylphenol	EPA 8270D-SIM	µg/kg dw	10.2	25.0

Table C-1. Methods and RL goals for PCB Aroclors, cPAHS, metals, SVOCs, and conventionals in sediment/soil

Analyte	Method	Unit	MDL	RL
4-methylphenol	EPA 8270D	µg/kg dw	14.7 ^a	20.0 ^b
Benzoic acid	EPA 8270D-SIM	µg/kg dw	13.4	50.0
Benzyl alcohol	EPA 8270D-SIM	µg/kg dw	12.1	20.0
Bis(2-ethylhexyl)phthalate	EPA 8270D	µg/kg dw	28.8 ^a	50.0 ^b
Butyl benzyl phthalate	EPA 8270D	µg/kg dw	8.05 ^a	20.0 ^b
Dibenzofuran	EPA 8270D	µg/kg dw	4.61 ^a	20.0 ^b
Dimethyl phthalate	EPA 8270D	µg/kg dw	6.44 ^a	20.0 ^b
Hexachlorobenzene	EPA 8270D-SIM	µg/kg dw	2.11	5.00
n-Nitrosodiphenylamine	EPA 8270D-SIM	µg/kg dw	2.31	5.00
PCP	EPA 8270D-SIM	µg/kg dw	10.4	20.0
Phenol	EPA 8270D	µg/kg dw	8.23 ^a	20.0 ^b
1,2,4-trichlorobenzene	EPA 8270D-SIM	µg/kg dw	1.51	5.00
1,2-dichlorobenzene	EPA 8270D-SIM	µg/kg dw	1.32	5.00
1,4-dichlorobenzene	EPA 8270D -SIM	µg/kg dw	1.91	5.00
Toxaphene (based on 12.5-g dw sample)	EPA 8081B	µg/kg dw	4.48 ^a	25.0 ^b
Conventionals				
Grain size	PSEP 1986	%	na	0.1
Percent solids	SM 2540G	% dw	na	0.040
TOC (based on 1-g dw sample)	EPA 9060	% dw	0.018	0.02
Black carbon (based on 10-g dw sample)	Gustafsson, 2001 - CTO Pretreatment / Combustion (950°C) / IR detect EPA 440.0	wt%	0.2	0.6

- a SW 846 no longer requires MDL values. The laboratories have the option to use these values to assess sensitivity for EPA 8000 series methods. ARI has continued to maintain MDL studies for these analytes.
- b RL values are consistent with the LLOQ values required under EPA SW-846.
- c Compound is a component of the HPAH sum.
- d Compound is a component of the LPAH sum.
- e SW 846 no longer requires MDL values.

BEHP – bis(2-ethylhexyl) phthalate

BHC – benzene hexachloride

cPAH – carcinogenic polycyclic aromatic hydrocarbon

DDD – dichlorodiphenyldichloroethane

DDE – dichlorodiphenyldichloroethylene

DDT – dichlorodiphenyltrichloroethane

dw – dry weight

EPA – US Environmental Protection Agency

HPAH – high-molecular-weight polycyclic aromatic hydrocarbon

LLOQ – lower limit of quantitation

MDL – method detection limit

LPAH – low-molecular-weight polycyclic aromatic hydrocarbon

na – not available

PCB – polychlorinated biphenyl

PCP – pentachlorophenol

PSEP - Puget Sound Estuary Program

RL – reporting limit

SIM – selective ion monitoring

SVOC – semivolatile organic compounds

TBT – tributyltin

TOC – total organic carbon

total DDx – DDT isomers (2,4'-DDD, 4,4'-DDD, 2,4'-DDE, 4,4'-DDE, 2,4'-DDT and 4,4'-DDT)

ww – wet weight

Table C-2. Method and RL goals for PCB congeners in sediment

Analyte	EPA Method 1668C				Estimated porewater DL (ug/L) ^c	
	Sediment (ng/kg dw) Based on 10-g dw sample		Passive Sampler (pg/g) Based on 1-g PE sample			
	EDL ^a	LMCL ^b	EDL ^a	LMCL ^b		
PCB-1	0.1	2.0	1.0	4.0	0.6714	
PCB-2	0.1	2.0	1.0	4.0	0.3954	
PCB-3	0.1	2.0	1.0	4.0	0.7907	
PCB-4	0.2	2.0	2.0	4.0	0.8670	
PCB-5	0.2	2.0	2.0	4.0	0.4150	
PCB-6	0.2	2.0	2.0	4.0	0.3373	
PCB-7	0.2	2.0	2.0	4.0	0.3296	
PCB-8	0.2	2.0	2.0	4.0	0.3296	
PCB-9	0.2	2.0	2.0	4.0	0.3373	
PCB-10	0.2	2.0	2.0	4.0	0.5598	
PCB-11	0.2	2.0	2.0	4.0	0.2032	
PCB-12/13	0.2	2.0	2.0	4.0	0.2160 ^d	
PCB-14	0.2	2.0	2.0	4.0	0.2032	
PCB-15	0.2	2.0	2.0	4.0	0.1941	
PCB-16	0.1	2.0	1.0	4.0	0.1340	
PCB-17	0.1	2.0	1.0	4.0	0.1089	
PCB-19	0.1	2.0	1.0	4.0	0.1849	
PCB-21/33	0.1	2.0	1.0	4.0	0.0542 ^d	
PCB-22	0.1	2.0	1.0	4.0	0.0509	
PCB-23	0.1	2.0	1.0	4.0	0.0521	
PCB-24	0.1	2.0	1.0	4.0	0.0865	
PCB-25	0.1	2.0	1.0	4.0	0.0414	
PCB-26/29	0.1	2.0	1.0	4.0	0.0486 ^d	
PCB-27	0.1	2.0	1.0	4.0	0.0703	
PCB-28/20	0.1	2.0	1.0	4.0	0.0486 ^d	
PCB-30/18	0.1	2.0	1.0	4.0	0.0909 ^d	
PCB-31	0.1	2.0	1.0	4.0	0.0414	
PCB-32	0.1	2.0	1.0	4.0	0.0703	
PCB-34	0.1	2.0	1.0	4.0	0.0424	
PCB-35	0.1	2.0	1.0	4.0	0.0293	
PCB-36	0.1	2.0	1.0	4.0	0.0255	
PCB-37	0.1	2.0	1.0	4.0	0.0286	
PCB-38	0.1	2.0	1.0	4.0	0.0337	
PCB-39	0.1	2.0	1.0	4.0	0.0249	
PCB-41/40/71	0.1	2.0	1.0	4.0	0.0341 ^d	
PCB-42	0.1	2.0	1.0	4.0	0.0337	

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Table C-2. Method and RL goals for PCB congeners in sediment

Analyte	EPA Method 1668C				Estimated porewater DL (ug/L) ^c	
	Sediment (ng/kg dw) Based on 10-g dw sample		Passive Sampler (pg/g) Based on 1-g PE sample			
	EDL ^a	LMCL ^b	EDL ^a	LMCL ^b		
PCB-43	0.1	2.0	1.0	4.0	0.0344	
PCB-44/47/65	0.1	2.0	1.0	4.0	0.0295 ^d	
PCB-45/51	0.1	2.0	1.0	4.0	0.0399 ^d	
PCB-46	0.1	2.0	1.0	4.0	0.0571	
PCB-48	0.1	2.0	1.0	4.0	0.0321	
PCB-50/53	0.1	2.0	1.0	4.0	0.0459 ^d	
PCB-52	0.1	2.0	1.0	4.0	0.0280	
PCB-54	0.1	2.0	1.0	4.0	0.1194	
PCB-55	0.1	2.0	1.0	4.0	0.0150	
PCB-56	0.1	2.0	1.0	4.0	0.0150	
PCB-57	0.1	2.0	1.0	4.0	0.0131	
PCB-58	0.1	2.0	1.0	4.0	0.0131	
PCB-59/62/75	0.1	2.0	1.0	4.0	0.0213 ^d	
PCB-60	0.1	2.0	1.0	4.0	0.0150	
PCB-61/70/74/76	0.1	2.0	1.0	4.0	0.0141 ^d	
PCB-63	0.1	2.0	1.0	4.0	0.0131	
PCB-64	0.1	2.0	1.0	4.0	0.0217	
PCB-66	0.1	2.0	1.0	4.0	0.0122	
PCB-67	0.1	2.0	1.0	4.0	0.0122	
PCB-68	0.1	2.0	1.0	4.0	0.0106	
PCB-69/49	0.1	2.0	1.0	4.0	0.0225 ^d	
PCB-72	0.1	2.0	1.0	4.0	0.0106	
PCB-73	0.1	2.0	1.0	4.0	0.0177	
PCB-77	0.1	2.0	1.0	4.0	0.0085	
PCB-78	0.1	2.0	1.0	4.0	0.0086	
PCB-79	0.1	2.0	1.0	4.0	0.0074	
PCB-80	0.1	2.0	1.0	4.0	0.0064	
PCB-81	0.1	2.0	1.0	4.0	0.0085	
PCB-82	0.1	2.0	1.0	4.0	0.0122	
PCB-83/99	0.1	2.0	1.0	4.0	0.0093 ^d	
PCB-84	0.1	2.0	1.0	4.0	0.0177	
PCB-88/91	0.1	2.0	1.0	4.0	0.0154 ^d	
PCB-89	0.1	2.0	1.0	4.0	0.0165	
PCB-92	0.1	2.0	1.0	4.0	0.0086	
PCB-94	0.1	2.0	1.0	4.0	0.0144	
PCB-95/100/93/102/98	0.1	2.0	1.0	4.0	0.0142 ^d	

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Table C-2. Method and RL goals for PCB congeners in sediment

Analyte	EPA Method 1668C				Estimated porewater DL (ug/L) ^c	
	Sediment (ng/kg dw) Based on 10-g dw sample		Passive Sampler (pg/g) Based on 1-g PE sample			
	EDL ^a	LMCL ^b	EDL ^a	LMCL ^b		
PCB-96	0.1	2.0	1.0	4.0	0.0378	
PCB-103	0.1	2.0	1.0	4.0	0.0117	
PCB-104	0.1	2.0	1.0	4.0	0.0300	
PCB-105	0.1	2.0	1.0	4.0	0.0043	
PCB-106	0.1	2.0	1.0	4.0	0.0044	
PCB-108/124	0.1	2.0	1.0	4.0	0.0037 ^d	
PCB-109/119/86/97/125/87	0.1	2.0	1.0	4.0	0.0081 ^d	
PCB-107	0.1	2.0	1.0	4.0	0.0038	
PCB-110/115	0.1	2.0	1.0	4.0	0.0063 ^d	
PCB-111	0.1	2.0	1.0	4.0	0.0034	
PCB-112	0.1	2.0	1.0	4.0	0.0069	
PCB-113/90/101	0.1	2.0	1.0	4.0	0.0074 ^d	
PCB-114	0.1	2.0	1.0	4.0	0.0043	
PCB-117/116/85	0.4	2.0	1.0	4.0	0.0085 ^d	
PCB-118	0.4	2.0	1.0	4.0	0.0035	
PCB-120	0.4	2.0	1.0	4.0	0.0031	
PCB-121	0.4	2.0	1.0	4.0	0.0044	
PCB-122	0.4	2.0	1.0	4.0	0.0044	
PCB-123	0.4	2.0	1.0	4.0	0.0035	
PCB-126	0.4	2.0	1.0	4.0	0.0025	
PCB-127	0.4	2.0	1.0	4.0	0.0022	
PCB-128/166	0.4	2.0	1.0	4.0	0.0029 ^d	
PCB-130	0.4	2.0	1.0	4.0	0.0031	
PCB-131	0.4	2.0	1.0	4.0	0.0051	
PCB-132	0.4	2.0	1.0	4.0	0.0051	
PCB-133	0.4	2.0	1.0	4.0	0.0027	
PCB-134/143	0.4	2.0	1.0	4.0	0.0052 ^d	
PCB-136	0.4	2.0	1.0	4.0	0.0117	
PCB-137	0.4	2.0	1.0	4.0	0.0029	
PCB-138/163/129/160	0.4	2.0	1.0	4.0	0.0027 ^d	
PCB-139/140	0.4	2.0	1.0	4.0	0.0041 ^d	
PCB-141	0.4	2.0	1.0	4.0	0.0029	
PCB-142	0.4	2.0	1.0	4.0	0.0060	
PCB-144	0.4	2.0	1.0	4.0	0.0041	
PCB-145	0.4	2.0	1.0	4.0	0.0109	
PCB-146	0.4	2.0	1.0	4.0	0.0025	

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Table C-2. Method and RL goals for PCB congeners in sediment

Analyte	EPA Method 1668C				Estimated porewater DL (ug/L) ^c	
	Sediment (ng/kg dw) Based on 10-g dw sample		Passive Sampler (pg/g) Based on 1-g PE sample			
	EDL ^a	LMCL ^b	EDL ^a	LMCL ^b		
PCB-147/149	0.4	2.0	1.0	4.0	0.0043 ^d	
PCB-148	0.4	2.0	1.0	4.0	0.0036	
PCB-150	0.4	2.0	1.0	4.0	0.0091	
PCB-151/135/154	0.4	2.0	1.0	4.0	0.0041 ^d	
PCB-152	0.4	2.0	1.0	4.0	0.0117	
PCB-153/168	0.4	2.0	1.0	4.0	0.0019 ^d	
PCB-155	0.4	2.0	1.0	4.0	0.0075	
PCB-156/157	0.4	4.0	1.0	8.0	0.0013 ^d	
PCB-158	0.4	2.0	1.0	4.0	0.0018	
PCB-159	0.4	2.0	1.0	4.0	0.0011	
PCB-161	0.1	2.0	1.0	4.0	0.0016	
PCB-162	0.1	2.0	1.0	4.0	0.0011	
PCB-164	0.1	2.0	1.0	4.0	0.0018	
PCB-165	0.1	2.0	1.0	4.0	0.0017	
PCB-167	0.1	2.0	1.0	4.0	0.0010	
PCB-169	0.1	2.0	1.0	4.0	0.0007	
PCB-170	0.1	2.0	1.0	4.0	0.0010	
PCB-171/173	0.1	2.0	1.0	4.0	0.0017 ^d	
PCB-172	0.1	2.0	1.0	4.0	0.0009	
PCB-174	0.1	2.0	1.0	4.0	0.0015	
PCB-175	0.1	2.0	1.0	4.0	0.0013	
PCB-176	0.1	2.0	1.0	4.0	0.0034	
PCB-177	0.1	2.0	1.0	4.0	0.0016	
PCB-178	0.1	2.0	1.0	4.0	0.0014	
PCB-179	0.1	2.0	1.0	4.0	0.0036	
PCB-180/193	0.1	2.0	1.0	4.0	0.0007 ^d	
PCB-181	0.1	2.0	1.0	4.0	0.0015	
PCB-182	0.1	2.0	1.0	4.0	0.0012	
PCB-183/185	0.1	2.0	1.0	4.0	0.0014 ^d	
PCB-184	0.1	2.0	1.0	4.0	0.0027	
PCB-186	0.1	2.0	1.0	4.0	0.0040	
PCB-187	0.1	2.0	1.0	4.0	0.0013	
PCB-188	0.1	2.0	1.0	4.0	0.0029	
PCB-189	0.1	2.0	1.0	4.0	0.0004	
PCB-190	0.1	2.0	1.0	4.0	0.0007	
PCB-191	0.1	2.0	1.0	4.0	0.0005	

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Table C-2. Method and RL goals for PCB congeners in sediment

Analyte	EPA Method 1668C				Estimated porewater DL (ug/L) ^c	
	Sediment (ng/kg dw) Based on 10-g dw sample		Passive Sampler (pg/g) Based on 1-g PE sample			
	EDL ^a	LMCL ^b	EDL ^a	LMCL ^b		
PCB-192	0.1	2.0	1.0	4.0	0.0006	
PCB-194	0.1	2.0	1.0	4.0	0.0003	
PCB-195	0.1	2.0	1.0	4.0	0.0005	
PCB-196	0.1	2.0	1.0	4.0	0.0004	
PCB-197/200	0.1	2.0	1.0	4.0	0.0010 ^d	
PCB-198/199	0.1	2.0	1.0	4.0	0.0008 ^d	
PCB-201	0.1	2.0	1.0	4.0	0.0005	
PCB-202	0.1	2.0	1.0	4.0	0.0011	
PCB-203	0.1	2.0	1.0	4.0	0.0004	
PCB-204	0.1	2.0	1.0	4.0	0.0010	
PCB-205	0.1	2.0	1.0	4.0	0.0002	
PCB-206	0.1	2.0	1.0	4.0	0.0002	
PCB-207	0.1	2.0	1.0	4.0	0.0004	
PCB-208	0.1	2.0	1.0	4.0	0.0004	
PCB-209	0.1	2.0	1.0	4.0	0.0001	

^a EDL is a sample-specific DL. The value provided here is an estimate, and the sample-specific values will vary based on sample mass and the analytical conditions at the time of analysis.

^b LMCL is Axys's lowest calibration limit. Detected values below the LMCL are J-qualified. The reported LMCL will be adjusted based on the sample mass of each sample.

^c Assuming 0.1g of PE and that full equilibrium is reached for all congeners.

^d Detection limits for co-elutions were calculated based on the mean of the partition coefficients for the co-eluting congeners.

Axys – Axys Analytical Services, Ltd.

LMCL – lower method calibration limit

DL – detection limit

PCB – polychlorinated biphenyl

dw – dry weight

RAO – remedial action objective

EPA – US Environmental Protection Agency

RL – reporting limit

EDL – estimated detection limit

ww – wet weight

J – estimated concentration

Table C-3. Method and RL goals for dioxins/furan congeners in sediment

Analyte	EPA Method 1613B			
	Sediment (ng/kg dw) Based on 10-g sample		TEQ (ng/kg)	
	EDL ^a	LMCL ^b	TEF	TEQ ^c
2,3,7,8-TCDD	0.05	0.2	1	0.025
1,2,3,7,8-PeCDD	0.05	1.0	1	0.025
1,2,3,4,7,8-HxCDD	0.05	1.0	0.1	0.0025
1,2,3,6,7,8-HxCDD	0.05	1.0	0.1	0.0025
1,2,3,7,8,9-HxCDD	0.05	1.0	0.1	0.0025
1,2,3,4,6,7,8-HpCDD	0.05	1.0	0.01	0.00025
OCDD	0.05	2.0	0.0003	0.0000075
2,3,7,8-TCDF	0.05	0.2	0.1	0.0025
1,2,3,7,8-PeCDF	0.05	1.0	0.03	0.00075
2,3,4,7,8-PeCDF	0.05	1.0	0.3	0.0075
1,2,3,4,7,8-HxCDF	0.05	1.0	0.1	0.0025
1,2,3,6,7,8-HxCDF	0.05	1.0	0.1	0.0025
1,2,3,7,8,9-HxCDF	0.05	1.0	0.1	0.0025
2,3,4,6,7,8-HxCDF	0.05	1.0	0.1	0.0025
1,2,3,4,6,7,8-HpCDF	0.05	1.0	0.01	0.00025
1,2,3,4,7,8,9-HpCDF	0.05	1.0	0.01	0.00025
OCDF	0.05	2.0	0.0003	0.0000075

^a EDL is a sample-specific DL. The value provided here is an estimate, and the sample-specific values will vary based on sample mass and the analytical conditions at the time of analysis.

^b LMCL is Axys's lowest calibration limit. Detected values below the LMCL are J-qualified. The reported LMCL will be adjusted based on the sample mass of each sample.

^c TEQ calculated using ½ RL value multiplied by the TEF.

Axys – Axys Analytical Services, Ltd.

DL – detection limit

dw – dry weight

EPA – US Environmental Protection Agency

EDL – estimated detection limit

HxCDD – heptachlorodibenzo-p-dioxin

HxCDF – heptachlorodibenzofuran

HxCDD – hexachlorodibenzo-p-dioxin

HxCDF – hexachlorodibenzofuran

LMCL – lower method calibration limit

OCDD – octachlorodibenzo-p-dioxin

OCDF – octachlorodibenzofuran

PeCDD – pentachlorodibenzo-p-dioxin

PeCDF – pentachlorodibenzofuran

RAO – remedial action objective

RL – reporting limit

TCDD – tetrachlorodibenzo-p-dioxin

TCDF – tetrachlorodibenzofuran

TEF – toxic equivalency factor

TEQ – toxic equivalent

ww – wet weight

Table C-4. Jars for 0–10-cm grab samples

Location	Baseline Composite DQOs 1 and 2 2-8-oz Jars	SMS Analysis (DQOs 3 and 4) 1-4-oz. Jar 2-8-oz. Jar 1-16-oz. Jar	PCB Porewater and SMS Analysis (DQOs 3-5) 4-8-oz. Jar 3-16-oz. Jars	PCB Porewater (DQO 5) 3-8-oz. Jar 3-16-oz. Jar
1 through 168	X ^a			
8	-	X	-	-
23	-	X	-	-
40	-	X	-	-
52	-	X	-	-
69	-	X	-	-
91	-	X	-	-
101	-	X	-	-
130	-	X	-	-
143	-	X	-	-
161	-	X	-	-
169	-	-	X	
170	-	-	X	
171	-	-	-	X
172	-	-	-	X
173	-	-	-	X
174	-	-	X	
175	-	-	-	X
176	-	-	-	X
177	-	-	-	X
178	-	-	X	
179	-	-	X	
180	-	-	-	X
181	-	-	-	X
182	-	-	-	X
183	-	-	X	
184	-	-	X	
185	-	-	-	X
186	-	-	X	
187	-	-	X	
188	-	-	X	

^a An additional 8-oz jar for NOAA will be filled at each location as sample volume allows.

DQO – data quality objective

PCB – polychlorinated biphenyl

NOAA – National Oceanic and Atmospheric Administration

SMS – Sediment Management Standards

Table C-5. 0–10- and 0–45-cm composite sample jars

Sample	PCB Aroclors/cPAHs 1–8-oz. Jar	PCB Aroclors/cPAHs/Toxaphene 1–8-oz. Jar	Arsenic/TOC/TS 1–8-oz. Jar	Black Carbon 1–8-oz. Jar	Dioxin/Furan 1–8-oz. Jar ^a	Grain Size 1–16-oz. Jar	Archive 1–8-oz. Jar	Summary of Jars Needed
0–10-cm sediment	X	-	X	X	X	X	X	5–8-oz. jars 1–16-oz. jar
0–45 cm sediment	-	X	X	-	X	X	X	4–8-oz. jars 1–16-oz. jar

^a If none of the PCB Aroclors are detected, then sediment from the dioxin/furan jar will be analyzed for PCB congeners.

cPAH – carcinogenic polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

TOC – total organic carbon

TS – total solids

Table C-6. Near-outfall sediment and individual bank sample collection jars

Sample	SMS Analysis (DQOs 3 and 4) 1–4-oz. Jar, 2–8-oz. Jar 1–16-oz. Jar	Dioxin/Furan 1–8-oz. Jar	Archive 1–8-oz. Jar	Summary of Jars Needed
Near-outfall 0–10-cm sediment	X	X	X	1–4-oz. jar 4–8-oz. jars 1–16-oz. jar
Individual bank samples	X	X	X	1–4-oz. jar 4–8-oz. jars 1–16-oz. jar

DQO – data quality objective

SMS – Washington State Sediment Management Standards